What is claimed is:

1. A collet insert, comprising:

a substantially cylindrical sleeve;

a shoulder adjacent the sleeve; and

a gripping portion adjacent the shoulder, wherein the sleeve, the shoulder and the gripping portion comprise a longitudinal seam.

2. A collet insert as defined in claim 1, wherein the longitudinal seam comprises an open seam.

3. A collet insert as defined in claim 1, wherein the longitudinal seam is a closed seam in the sleeve.

4. A collet insert as defined in claim 3, wherein interleaved portions of the sleeve define a portion of the seam.

5. A collet insert as defined in claim 1, wherein the sleeve, the shoulder and the gripping portion comprise steel.

6. A collet insert as defined in claim 1, wherein the sleeve, the shoulder and the gripping portion comprise austempered spring steel.

7. A collet insert as defined in claim 1, wherein edges of the sleeve, the shoulder and the gripping portion are coined.

8. A collet insert, comprising:

a substantially cylindrical sleeve having an inner diameter and an outer diameter;

a shoulder adjacent the sleeve and having a larger inner diameter and a larger outer diameter than the sleeve; and

a gripping portion adjacent the shoulder, wherein the gripping portion comprises an inner diameter smaller than the inner diameter of the shoulder.

9. A collet insert as defined in claim 8, wherein an unfilled volume is formed between the shoulder and a cylindrical member when the cylindrical member is inserted into the spring collet.

10. A collet insert as defined in claim 8, wherein the sleeve, the shoulder and the gripping portion comprise steel.

11. A collet insert as defined in claim 8, wherein the sleeve, the shoulder and the gripping portion comprise austempered spring steel.

12. A collet insert as defined in claim 8, wherein edges of the sleeve, the shoulder and the gripping portion are coined.

13. For use with a member, a hand tool comprising:

a spindle having a bore, a tapered inner portion surrounding the bore and a threaded outer periphery;

a collet insert comprising a sleeve sized to be inserted into the bore of the spindle and a shoulder sized to abut the tapered inner portion of the spindle, the collet insert further comprising a gripping portion adjacent the shoulder, wherein the sleeve, the shoulder and the gripping portion comprise a longitudinal seam; and

a collet nut comprising a threaded inner periphery and an aperture, wherein the collet nut is dimensioned to be threaded onto the threaded outer periphery of the spindle and the collet nut and the collet insert are adapted to receive the member that extends into the gripping portion of the collet insert and wherein tightening of the collet nut causes the gripping portion to engage the member.

14. A hand tool as defined in claim 13, wherein the longitudinal seam is an open seam.

15. A hand tool as defined in claim 13, wherein the longitudinal seam is a closed seam in the sleeve.

16. A hand tool as defined in claim 13, wherein interleaved portions of the sleeve define a portion of the seam.

17. A tool comprising:

a spindle having a bore, a tapered inner portion surrounding the bore and a threaded outer periphery;

a collet inset comprising:

a substantially cylindrical sleeve having an inner diameter and an outer diameter, wherein the sleeve is dimensioned to extend into the bore of the spindle;

a shoulder adjacent the sleeve and having a larger inner diameter and a larger outer diameter than the sleeve, wherein the shoulder is located to engage the tapered inner portion of the spindle; and

a gripping portion adjacent the shoulder, wherein the gripping portion comprises an inner diameter smaller than the inner diameter of the shoulder; and

a collet nut comprising a threaded inner periphery and an aperture, wherein the collet nut is sized to be threaded onto the threaded outer periphery of the spindle.

18. A tool as defined in claim 17, wherein an unfilled volume is formed between the shoulder and a cylindrical member when the cylindrical member is inserted into the spring collet.

19. A tool as defined in claim 17, wherein the sleeve, the shoulder and the gripping portion comprise steel.

20. A tool as defined in claim 17, wherein the sleeve, the shoulder and the gripping portion comprise austempered spring steel.

21. A tool as defined in claim 17, wherein edges of the sleeve, the shoulder and the gripping portion are coined.

Process claims

22. A method of fabricating a collet insert from sheet metal, the method comprising:

removing a portion of the sheet metal to form fingers that are each connected to a linking portion;

forming the linking portion into a substantially cylindrical sleeve; and

forming the fingers of planar sheet metal into a shoulder adjacent the sleeve and a gripping portion adjacent the shoulder.

23. A method as defined in claim 22, further comprising coining edges of the fingers.

24. A method as defined in claim 22, further comprising calibrating inner diameters of the sleeve, the shoulder and the gripping portion.

25. A method as defined in claim 24, further comprising calibrating outer diameters of the sleeve, the shoulder and the gripping portion.

26. A method as defined in claim 22, further comprising detaching the shoulder from the sheet metal stock.

27. A method of fabricating a collet insert from substantially planar sheet metal stock, the method comprising:

removing a portion of the sheet metal to form fingers of planar sheet metal that are each connected to a linking portion of planar sheet metal;

forming the linking portion of the planar sheet metal into a substantially cylindrical sleeve having an inner diameter and an outer diameter;

forming the fingers of planar sheet metal into a shoulder adjacent the sleeve, the shoulder having a larger inner diameter and a larger outer diameter than the sleeve; and

forming a gripping portion adjacent the shoulder, wherein the gripping portion comprises an inner diameter smaller than the inner diameter of the shoulder.

28. A method as defined in claim 27, further comprising coining edges of the fingers of planar sheet metal.

29. A method as defined in claim 27, further comprising calibrating inner diameters of the sleeve, the shoulder and the gripping portion.

30. A method as defined in claim 29, further comprising calibrating outer diameters of the sleeve, the shoulder and the gripping portion.

31. A method as defined in claim 27, further comprising detaching the shoulder from the sheet metal stock.

32. A method of fabricating a collet insert from sheet metal, the method comprising:

punching first and second slots in the sheet metal;

removing a portion of the sheet metal to form fingers having a first end connected to a linking portion, the fingers being separate at a second end;

bending the fingers to have arcuate cross sections along a longitudinal axis;

bending the fingers to have angled portions;

forming the linking of the sheet metal into a substantially cylindrical sleeve; and

forming the fingers into a substantially cylindrical shape, wherein the angled portions form a shoulder and the second ends of the fingers form a gripping portion.

33. A method as defined in claim 32, further comprising coining edges of the fingers.

34. A method as defined in claim 32, further comprising calibrating inner diameters of the sleeve, the shoulder and the gripping portion.

35. A method as defined in claim 34, further comprising calibrating outer diameters of the sleeve, the shoulder and the gripping portion.

36. A method as defined in claim 32, further comprising detaching the shoulder from the sheet metal.